

## DETAILED ACTION

### ***Information Disclosure Statement***

1. The I DS paper filed on 07/11/2008 has been reviewed and placed of record.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

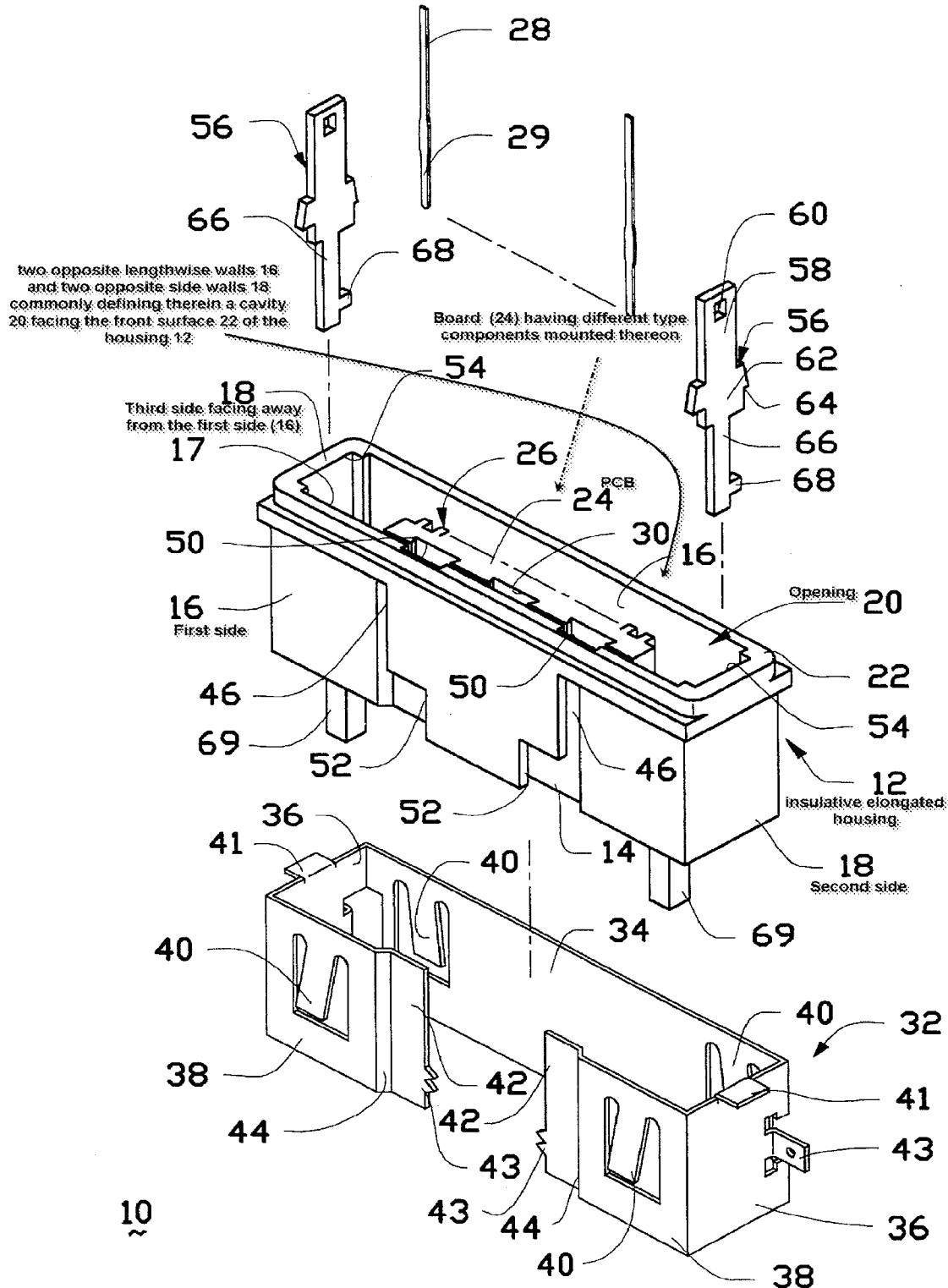
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 7-9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al. (US 5,622,522) hereafter refer as Tan.

**Regarding claim 1,** Tan disclose an electrically insulating body (figure) provided with a conductor pattern (figure 1 element 24) which insulating body (figure 1 element 12) is provided with a first (figure 1 element 16) and a second (figure 1 element 18) side between which an enclosed angle is present of substantially less than 180 degrees (See figure below, the angle between the tow sides is 90 degree); wherein the

conductor pattern (Figure 1 Element 24) extends over and is recessed ( figure 1 Element 20) in the first and the second side (figure 1 elements 16 and 18 respectively) and, wherein the conductor pattern (figure 1Element 24) comprises a number of strip-shaped conductors (figure 2 element 29, disposed on the under-surface of the board 24) provided each with at least one region of larger dimensions than the width of the strip-shaped conductors (figure 1 element 24, traces on the PCB), which regions are suitable for electrical contacting of electronic elements to be assembled together with the insulating body (figure 1 element 12).

The examiner maintains that the sidewalls are "separated" in the sense that they are separate sections of the shield separated by a gap between the sidewalls. To the extent that one can argue that the sidewalls are not "separated" because they are attached at the top corner of each sidewall, Tan discloses two sidewalls each being a separate piece. At the time of the invention, it would have been obvious to make the Tan shield in four separate pieces as taught in Tan (Column 3 lines 35-43). The use of a one piece construction instead of two or more piece construction or the use of a two piece construction instead of a one piece construction would have been a matter of obvious engineering choice. Furthermore, In re Larson, 340 F.2d 965 (CCPA 1965); In re In re Duhlberq, 129 USPQ 348 (CCPA 1961); MPEP section 2144.04. See also KSR International Co. v. Teleflex Inc., 82 USPQ.2d 1385 (2007) (The substituted components and their functions were known in the art. One with ordinary skill in the art could have substituted one known element for another and the results of the substitution would have been predictable).



**Regarding claim 2,** Tan discloses that a cavity or opening (figure 1 element 20) is present in the body for mounting an electronic element (see the Abstract).

**Regarding claim 3,** Tan disclose that the cavity (figure 1 element 20) has a bottom (Figure 1, Element 14) and a side wall (Figure 1, Elements 16 and 18), the conductor pattern (Figure 1 element 24) extending over the side wall and optionally over the bottom (figure 1 element 14) of the cavity (Figure 1 Element 20), while a connection region for electrical contacting of the electronic element is present in the cavity (Figure 1 Element 20).

**Regarding claim 4,** Tan discloses that the opening (Figure 1 Element 20) extends from the first side (Figure 1 Element 16) through to a third side (Figure 1 Element 18) facing away from the first side (Figure 1 element 16), such that a first component (Column 2 lines 29-31) can be placed at the first side (Figure 1Element 16) and a second component can be placed at the third side (Column 2 lines 29-31), which components together with the interposed body define an electronic element (see figure above in claim 1).

**Regarding claim 5,** Tan disclose that at least a number of the strip-shaped conductors (Figure 2 element 29) are provided with respective regions at respective ends which regions act as connection regions and are located in a closed, preferably rectangular arrangement. (See figures 2 and 3)

**Regarding claim 7,** Tan discloses that at least a number of the strip-shaped conductors (Figure 2 Element 29) have respective strip- shaped ends, said ends being at least substantially oriented in parallel and present at the first side (Figure 1 Element

16). (See figure 1).

**Regarding claim 8,** Tan discloses that the strip-shaped conductors (Figure 2 Element 29) have a width of between 10 and 500 Micrometer.

**Regarding claim 9,** Tan disclose an electronic device (Figure1 element 10) provided with an electronic element (Figure 1 Element 24) and with an electrically insulating body (figure 1 element 12) with a conductor pattern (Figure 2 Element 29) as claimed in one of the above preceding claims.

**Regarding claim 12,** Tan disclose an apparatus for mobile communication provided with an electronic device as claimed in claim 9. (Column 4 line 15-18).

**Regarding claim 13,** Tan disclose that at least a number of the strip-shaped conductors (figure 2 Element 29) is provided with respective regions at respective ends which regions act as connection regions and are located in a closed, preferably rectangular arrangement. (See figure 1).

**Regarding claim 14,** Tan disclose wherein the number of strip- shaped conductors (figure 2 Element 29) extend over and are recessed (figure 1 Element 20) in the first side (figure 1 Element 16) and the second side (figure 1 Element 18) of the body (figure 1Element 12).

5. Claims 10-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al. (US 5,622,522) hereafter refer as Tan in view of Kitahara (5,440,452)

Regarding claims 10 and 11, Tan disclose an electrically insulating body (figure 1) provided with a conductor pattern which insulating body (figure 1 element 12) is provided with a first and a second side (Figure 1 elements 16 and 18 respectively)

between which an enclosed angle is present of substantially less than 180 degrees (See figure 1); wherein the conductor pattern (Figure 2 Element 29) extends over and is recessed (Figure 1 Element 20) in the first and the second side and, wherein the conductor pattern (Figure 2 Element 29) comprises a number of strip-shaped conductors (Figure 2 Element 29) provided each with at least one region of larger dimensions than the width of the strip-shaped conductors (Figure 2 Element 29), which regions are suitable for electrical contacting of electronic elements to be assembled together with the insulating body (Figure 1 Element 12), said body acting as a carrier of the conductor pattern and as a carrier of the elements (figures 1 element 24).

Tan does not expressly disclose an optical lens.

Kitahara discloses an optical lens, together defined as a camera. (Column 11 paragraph 7 lines 56-64).

Tan and Kitahara are analogous art because they are from same field of endeavor, surface mount components.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate an optical lens as taught by Kitahara to the mounting surface of Tan in order to visually check the joint thoroughly with an up-to-date camera to ensure the desired quality.

#### ***Allowable Subject Matter***

6. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding claim 6, the prior art does not suggest the

device as claimed, including the combination of all the claimed elements, the combination including that an electrically insulating body characterized in that the conductor pattern extends from the first side over the second side onto the third side.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chen (US 7,179,126) this invention relates to an electrical connector, and particularly to an electrical connector used for a mobile phone or other electrical devices, Nishio et al. (US 6,905,344) this invention relates to a connector to which a module body such as a memory module and a camera module is fitted and LU (US 6,939,172 B2) this invention relates to an electrical connector, particularly to an electrical connector applied in the mobile phones or other electronic equipments.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABIY GETACHEW whose telephone number is (571)272-6932. The examiner can normally be reached on Monday to Friday 8Am to 4:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DEAN REICHARD can be reached on (571)272-1984. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dean A. Reichard/  
Supervisory Patent Examiner, Art Unit 2841

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A.G.  
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